

Parts Manual

Floor type Gas Convection Steamer



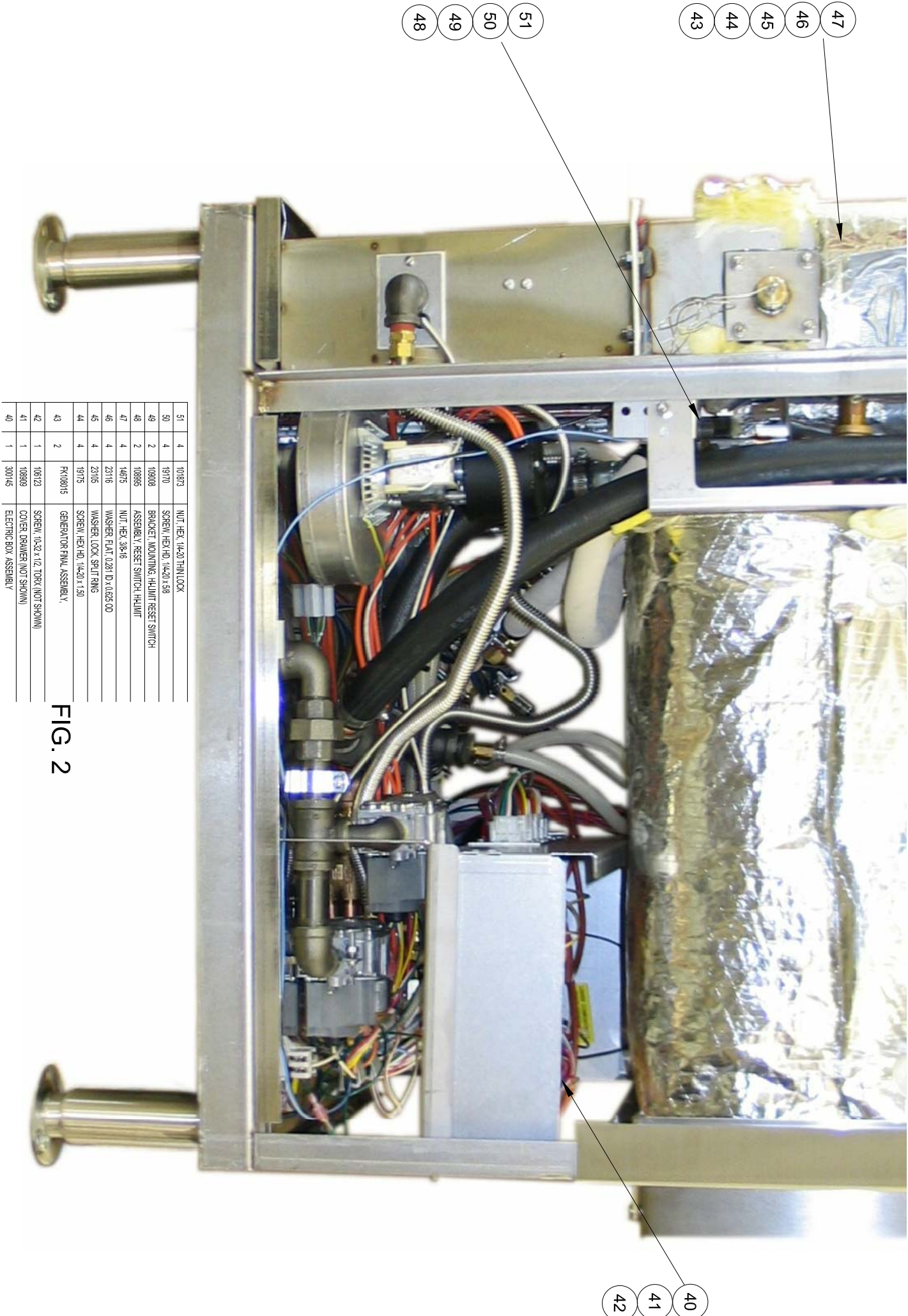
Series: SteamCraft Model 24CGA10.2

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www.clevelandrange.com

 Cleveland



51	4	10183	NUT, HEX, 1/4-20 THIN LOCK
50	4	19170	SCREW, HEX HD, 1/4-20 x 1.98
49	2	109008	BACKET MOUNTING, HILUNT RESET SWITCH
48	2	108995	ASSEMBLY, RESET SWITCH, HILUNT
47	4	14075	NUT, HEX, 3/8-16
46	4	23116	WASHER, FLAT, 0.281 ID, 0.625 OD
45	4	23105	WASHER, LOCK, SPLIT RING
44	4	19175	SCREW, HEX HD, 1/4-20 x 1.50
43	2	FK108015	GENERATOR FINAL ASSEMBLY,
42	1	106123	SCREW, 1/8-2 x 1/2, TORX (NOT SHOWN)
41	1	108909	COVER, DRAWER (NOT SHOWN)
40	1	300145	ELECTRIC BOX ASSEMBLY

FIG. 2

93	2	2	1061712	BRAIN ASSY COMPARTMENT
92	2	2	1043790125	CLAMP HOSE SILICONE 3/4" ID X 1.25" LG
91	4	2	108812	SCREW 1024 X 0.625 HEX HD
90	2	2	108734	NUT 1024 EXTRUDED SLIP-ON
89	2	1	1079121	PLATE ASSY PROBE HOUSING MOUNT
88	1	1	10617075	HOSE 0.750" ID X 4.750" L WHITE EPDM
87	1	1	106126	SCREW 8-32 X 1/2 TORX / SLOT
86	1	1	106601000	CHAIN RESTRAINT
85	1	2	106123	SCREW 1042 X 0.500 TORX / SLOT
84	1	1	108809	COVER ELECTRIC BOX
83	1	1	300146	ELECTRIC BOX ASSEMBLY
82	1	1	1065110625	HOSE 0.750" ID X 0.250" L WHITE EPDM
81	2	2	20208	TEE 3/4
80	6	6	06240	FTG HOSE BARB 3/4H X 3/4PT MALE
79	1	1	11245	ELBOW 3/4 X 45° STREET
78	1	1	106111800	HOSE 0.750" ID X 18.000" L WHITE EPDM
77	1	1	065111800	HOSE 0.750" ID X 2.250" L WHITE EPDM
76	1	1	23116	WASHER 0.251 ID X 0.625 OD
75	14	14	14659	NUT 1024 HEX SST
74	4	4	10655	WASHER #10 FLAT
73	2	2	107239	HOUSING PROBE
72	1	1	108804200	HOSE 0.500" ID X 42.000" L WHITE EPDM
71	1	1	108820800	HOSE 0.500" ID X 33.000" L WHITE EPDM
69	2	2	109641	PORT DESCALER ASSEMBLY
68	2	2	1088201800	HOSE 0.500" ID X 18.000" L SILICONE
67	1	1	*	*
66	1	1	085042000	HOSE 0.500" ID X 28.000" L WHITE EPDM
64	2	2	1070591	BREATHER/SP NOZ ASSY
63	1	1	085113100	HOSE 0.750" ID X 31.000" L WHITE EPDM
62	1	1	*	*
61	8	8	0206	CLAMP HOSE WORK DRIVE 0.50 - 0.906 DIA.
60	1	1	085112000	HOSE 0.750" ID X 23.000" L WHITE EPDM

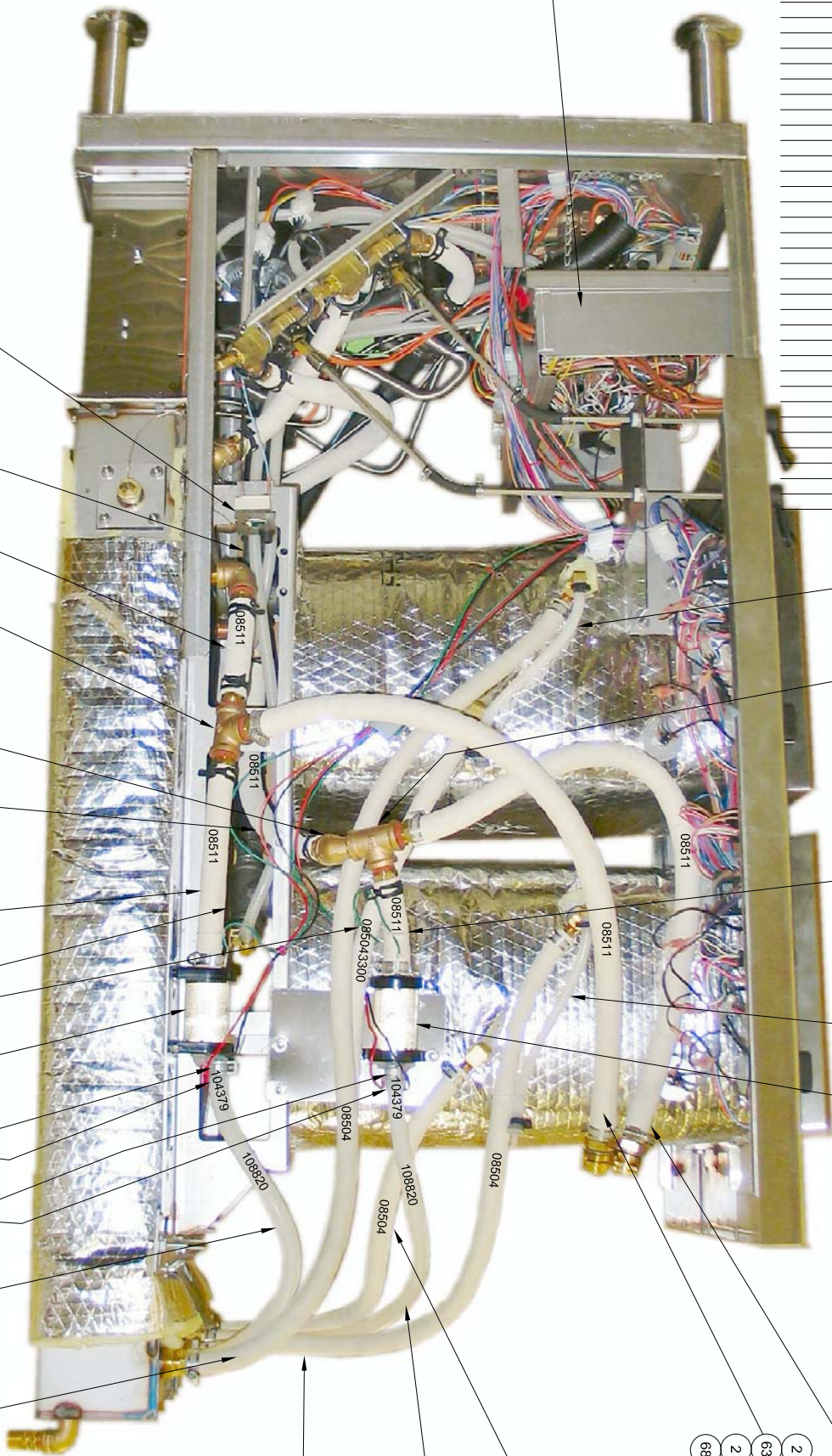
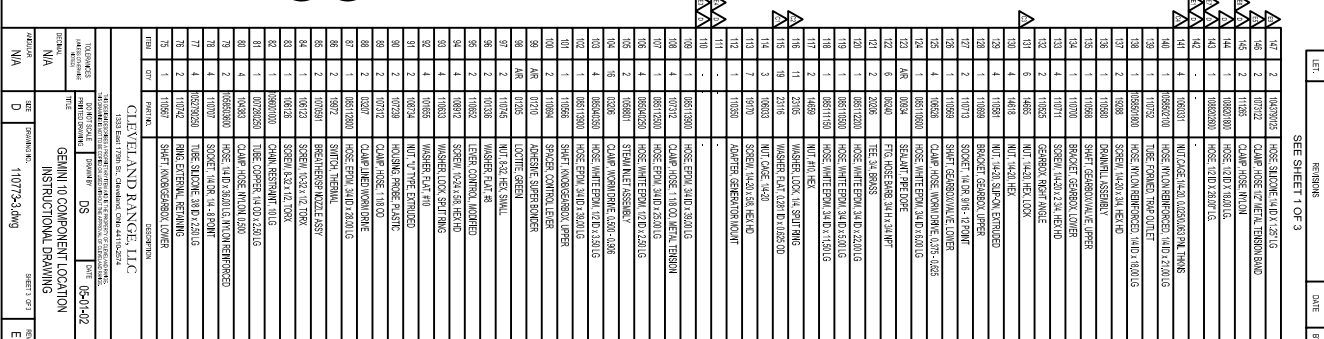
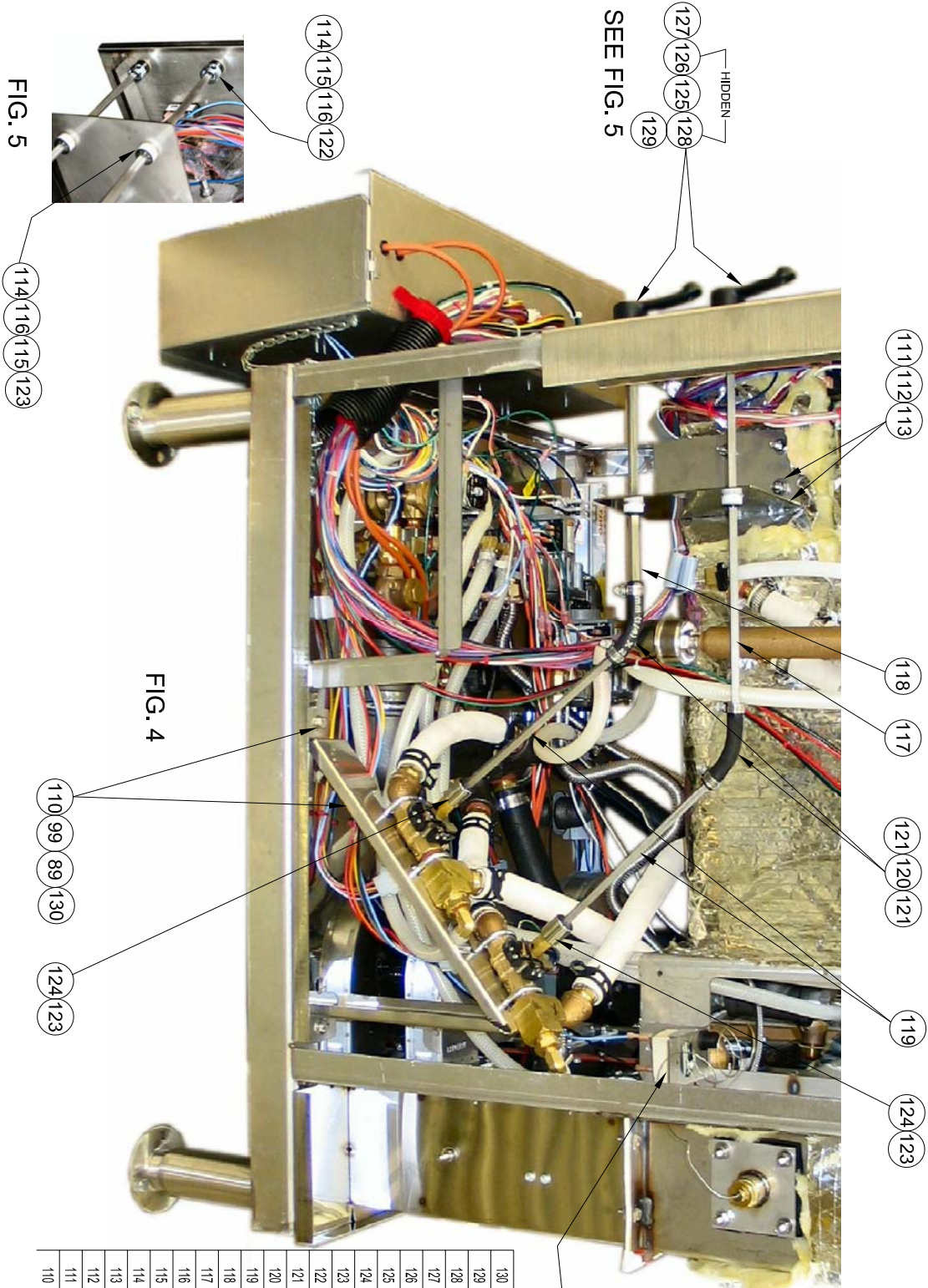


FIG. 3





130	2	14665	NUT, HEX, LOCK, 1/4-20, SST
129	AIR	107507	LOCTITE, BLUE
128	2	110694	SPACER, CONTROL LEVER
127	2	110652	LEVER, CONTROL, MODIFIED, 1/4 SQ. BORE
126	2	110745	NUT, HEX, #32 SMALL PATTERN, SST
125	2	101366	WASHER, FLAT, #8, SST
124	2	110713	SOCKET, 1/4" DR, 9/16" 12 POINT
123	4	112245	CLIP, RETAINING
122	2	112260	SHAFT COLLAR
121	6	106626	CLAMP, HOSE, WORM DR., 1/4 - 5/8, 5/16" WIDE
120	2	112181	FLEXIBLE LINKAGE HOSE
119	2	112178	ROD, LINKAGE, REAR
118	1	1121771	ROD, LOWER HANDLE
117	1	112177	ROD, UPPER HANDLE
116	4	102187	RING, CRESCENT, RETAINING
115	4	112244	BUSHING, INSERT
114	4	112243	BUSHING, SUPPORT
113	4	108873	NUT, HEX, LOCK, THIN, 1/4-20
112	4	23116	WASHER, FLAT, .281 ID X .625 OD X 0.065 THK
111	1	1121451	BRACKET, LINKAGE SUPPORT
110	1	112170	ASSEMBLY, DRAIN / FULL GENINI

48 49 50 51

ADD RTV (ITEM 7) AROUND CONNECTION POINTS ON TOP OF PROBE ASSEMBLY AFTER WIRE TERMINALS ARE CONNECTED.

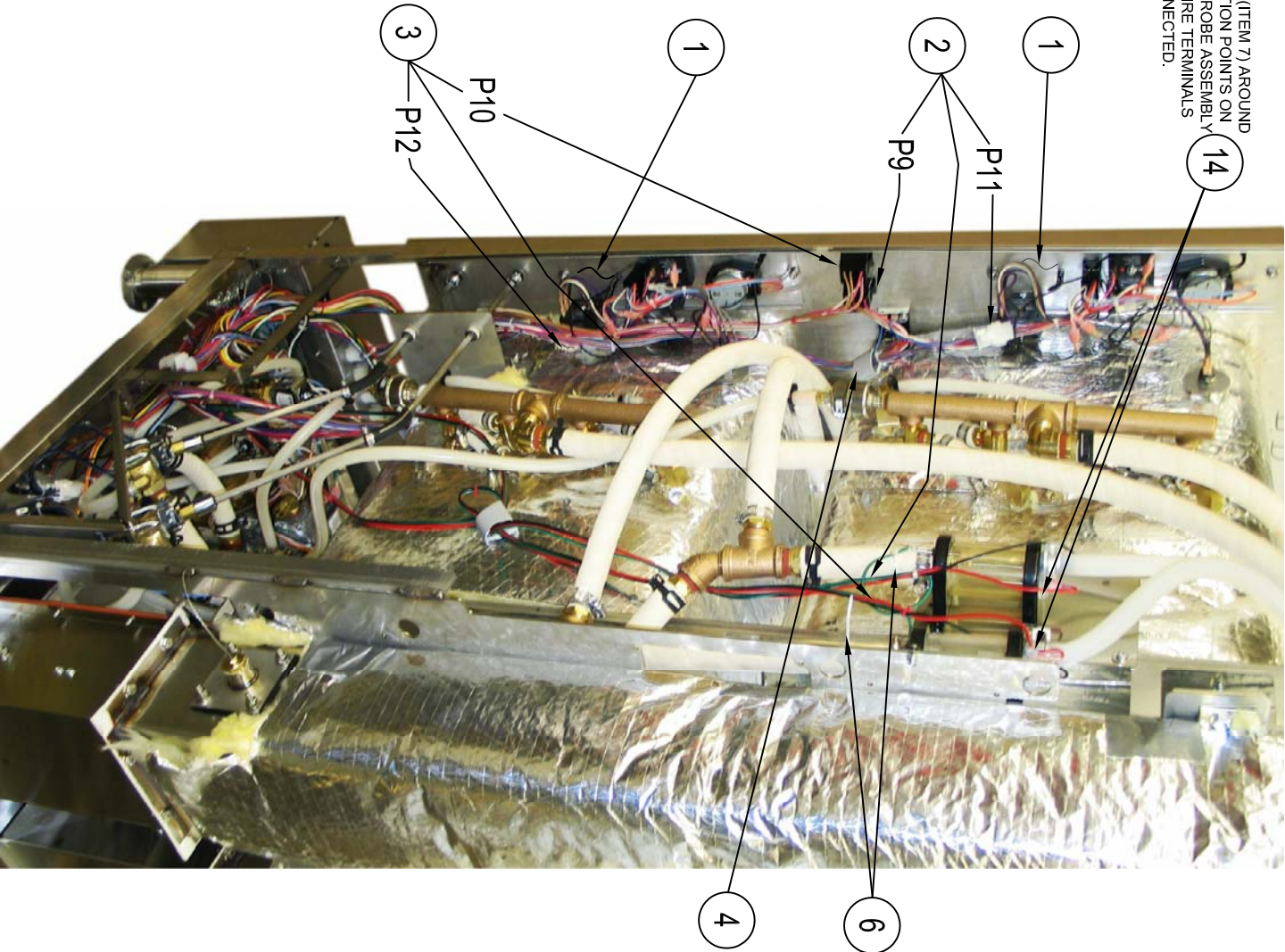
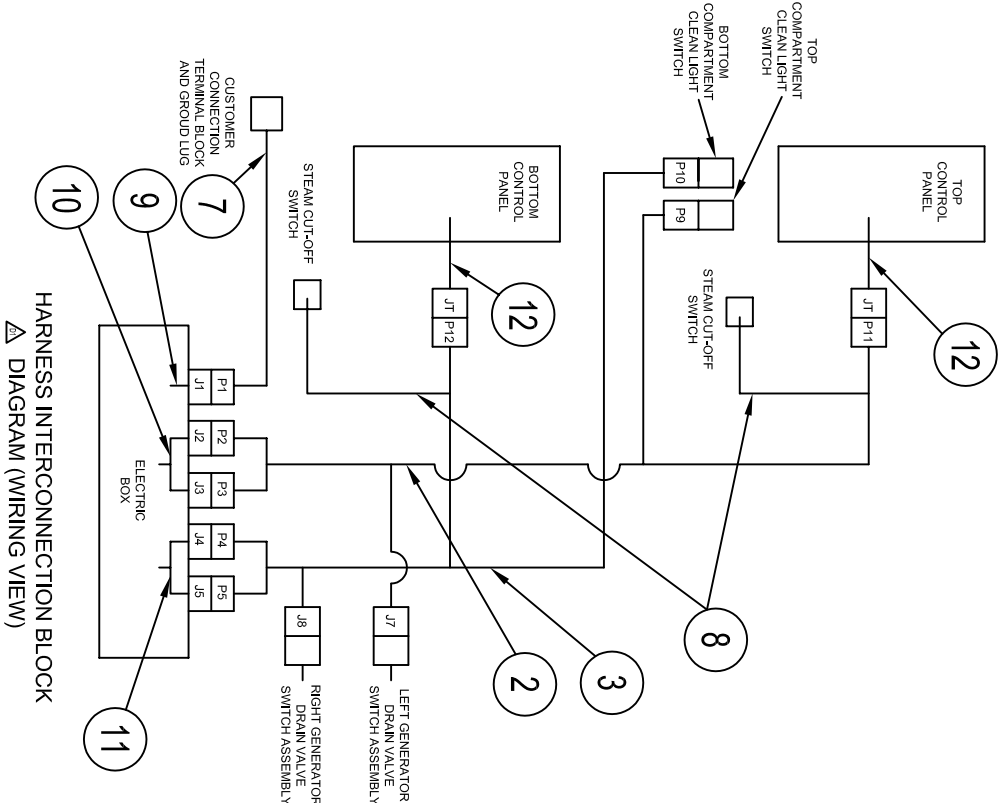


FIG. 1
HINGED LEFT UNIT WITH MECHANICAL CONTROL PANEL ASSEMBLIES SHOWN



HARNESS INTERCONNECTION BLOCK
▲ DIAGRAM (WIRING VIEW)

-	AR	AR	AR	AR	14	00933	SEALANT, RTV, CLEAR #732
4	-	-	-	-	13	20370	TERMINAL, SLIP ON, MALE, FULL INSUL, 22-18 GA, AVG
-	2	-	-	-	12	300126	WIRE HARNESS, CONTROL PANEL, ON/OFF
-	-	2	-	-	12	300126	WIRE HARNESS, CONTROL PANEL, ELECTRONIC
-	-	-	2	-	12	300124	WIRE HARNESS, CONTROL PANEL, MECHANICAL
-	1	1	1	1	11	300102	WIRE HARNESS, RIGHT (4 & 5), ELECTRIC BOX
-	1	1	1	1	10	300101	WIRE HARNESS, LEFT (2 & 3), ELECTRIC BOX
-	1	1	1	1	9	300100	WIRE HARNESS, MAIN POWER (V), ELECTRIC BOX
2	-	-	-	-	8	109946	WIRE HARNESS, MAGNETIC SWITCH
-	1	1	1	1	7	300143	WIRE HARNESS, WIRE, MAIN POWER (P1)
-	1	1	1	1	6	20451	CABLE TIE, NYLON
2	2	2	2	2	5	234321	CLIP MOUNTING, WIRECABLE, 0.750 X 0.750
1	1	1	1	1	5	234321	CLIP MOUNTING, WIRECABLE, 1.250 X 1.500
-	7	7	7	7	4	23432	WIRE HARNESS, RIGHT GEN, (P4, P5, J8, P10, P12), LOWER COMP.
-	1	1	1	1	3	300099	WIRE HARNESS, LEFT GEN, (P2, P3, J7, P9, P11), UPPER COMP.
-	1	1	1	1	2	300098	WIRE HARNESS, LEFT GEN, (P2, P3, J7, P9, P11), UPPER COMP.
-	2	-	-	-	1	300642	ASSEMBLY CONTROL PANEL, ON/OFF
-	-	2	-	-	1	300643	ASSEMBLY CONTROL PANEL, ELECTRONIC
-	-	-	2	1	1	300639	ASSEMBLY CONTROL PANEL, MECHANICAL

QTY	QTY	QTY	QTY	ITEM	P/N	DESCRIPTION
1	1	1	1	19	300290	WIRE ASSEMBLY GROUND
1	1	1	1	18	106123	SCREEN, 10-32 X 0.500, TOP/SLOT HD, SELF TAPPING
2	2	2	17	110655		CABLE TIE, (7/16-17)
1	1	1	16	110657/0900		TUBING, LOOM, SPUL, 6.000
1	1	1	15	110663		CLIP, WIRE BUNDLE PUSHMOUNT

ADDITIONAL PARTS USED
ON RIGHT HINGED UNITS

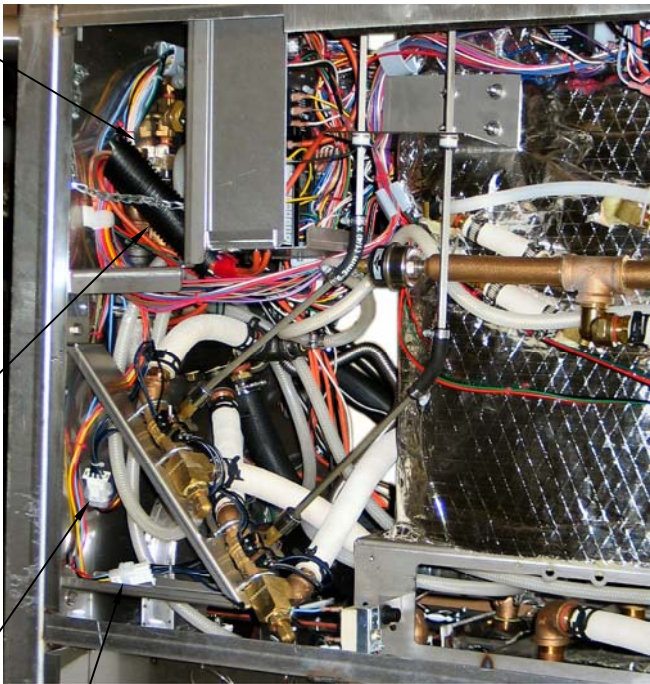


FIG. 2

ADJUST HARNESS TO LIE
BELOW DRIP TRAY DRAIN HOSE
FITTING WITH ELECTRIC BOX IN
PLACE.

J7 2
J8 3

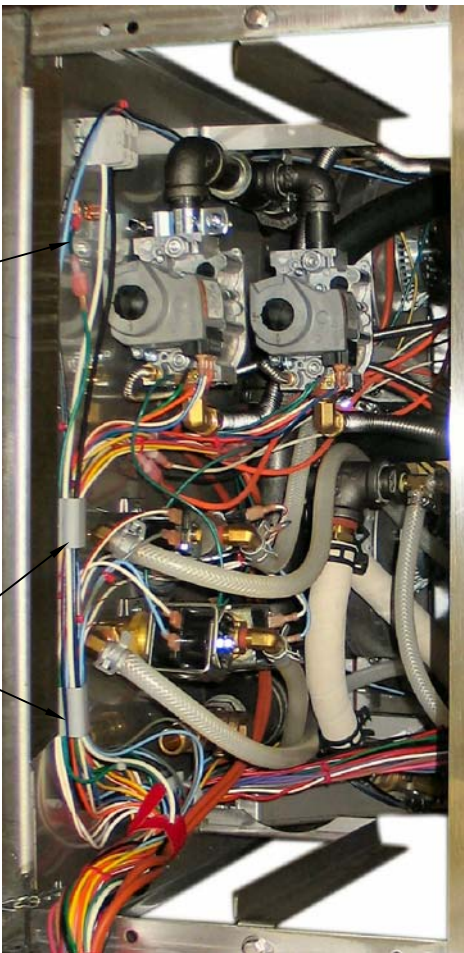


FIG. 3



FIG. 4

5
4
18 MOUNT BLOWER GROUND
WIRES, (NOT VISIBLE) TO
BASE PAN
19

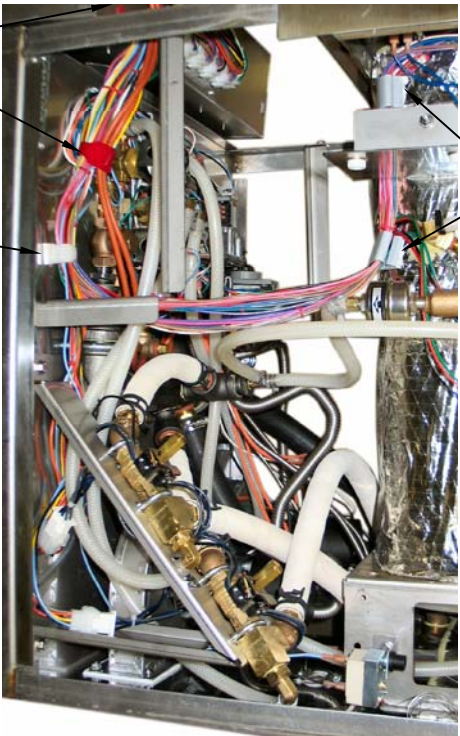
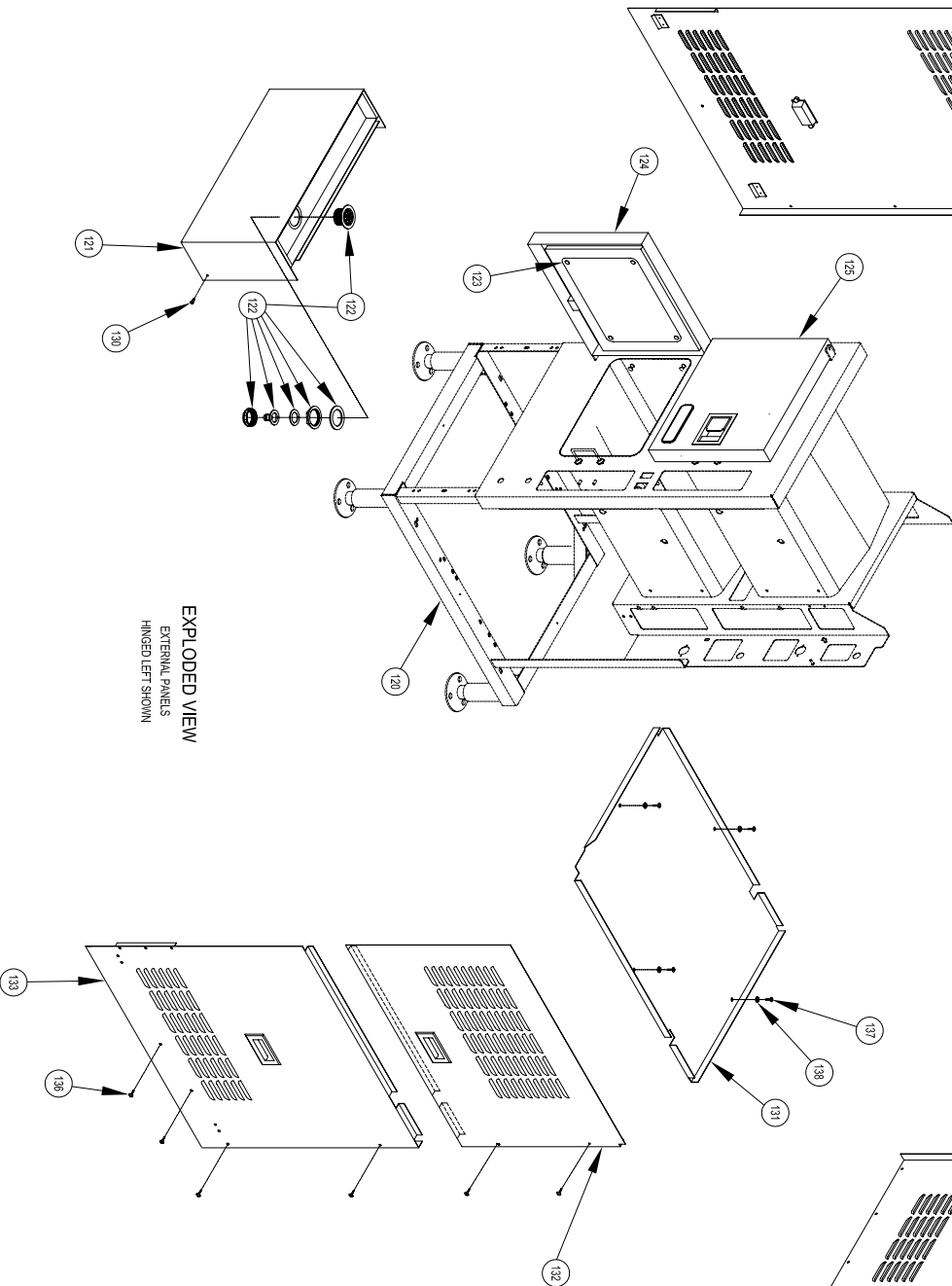
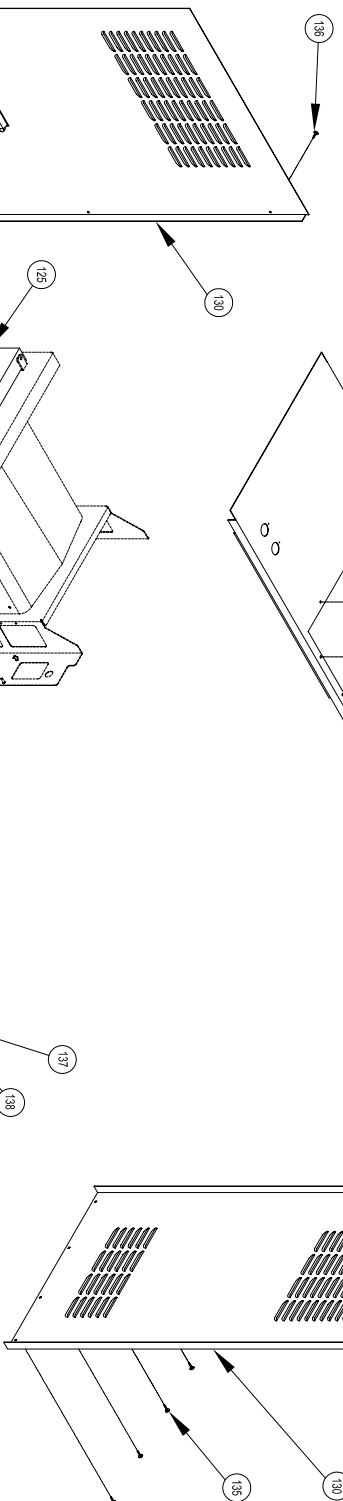
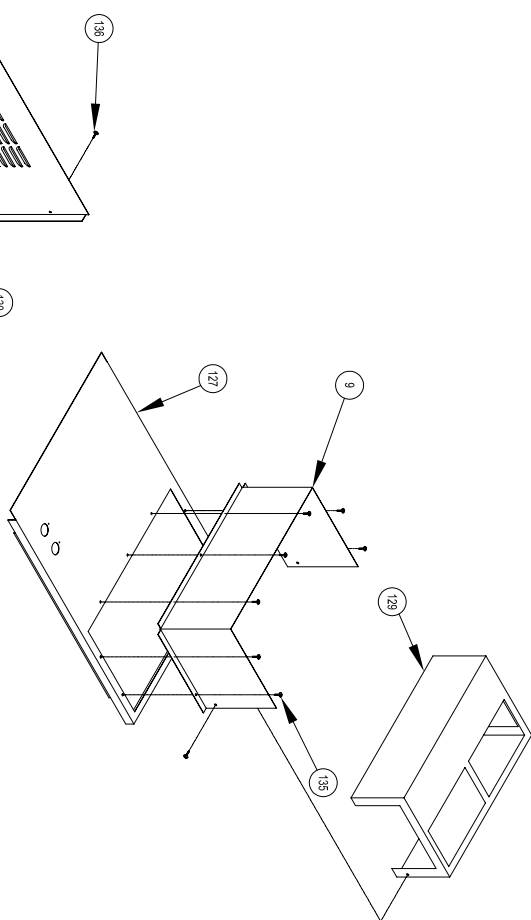


FIG. 5

17
15
4
19
4



EXPLODED VIEW
EXTERNAL PANELS
HINGED LEFT SHOWN

138	4	23116	WASHER, FLAT, 0.2811 ID x 0.625 OD
137	4	106123	SCREW, 10-32 x 1/2, TORX SLOT
136	10	19267	SCREW, #8 x 3/4, PAN HD, PHILLIPS
135	17	104080	SCREW, #8 x 1/2, PAN HD, PHILLIPS
134	2	107316	SCREW, PAN HEAD #10 x 3/4, THREAD CUTTING
133	1	107272	PANEL, RIGHT SIDE, BOTTOM, ASSY
132	1	1072731	PANEL, RIGHT SIDE, TOP, ASSY
131	1	110528	PAN, BASE
130	1	1056702	PANEL, BACK
129	1	111236	COVER, BOILER
128	1	111235	HOOD, GAS VENT
127	1	1089081	PANEL, TOP WELDMENT
126	1	1080431	PANEL, LEFT SIDE, ASSY
125	-	1108402	DOOR, OUTER ASSY, HR, WITH LOGO
124	-	110840	DOOR, OUTER ASSY, HL, WITH LOGO
123	-	1108404	DOOR, OUTER ASSY, HR
122	2	104101	DOOR ASSY, INNER
121	1	108737	DRAIN ASSY
120	-	108907	PANEL ASSY, LOWER FRONT
119	-	-	CAVITY ASSEMBLY

Statement of Responsibilities

This document is for use by experienced and trained Qualified Cleveland Range, LLC Authorized Service Representatives who are familiar with both the safety procedures, and equipment they service.

Cleveland Range, LLC assumes no liability for any death, injury, equipment damage, or property damage resulting from use of, improper use of, or failure to use the information contained in this document.

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Cleveland Range, LLC assumes no liability or responsibility regarding errata, changes, revisions, or updates.

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, OSHA regulations, and disconnect / lock out / tag out procedures for all utilities including steam, and disconnect / lock out / tag out procedures for gas, electric, and steam powered equipment and / or appliances

All utilities (gas, electric, water and steam) should be turned OFF to the equipment and locked out of operation according to OSHA approved practices during any servicing of Cleveland Range equipment

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to maintain up-to-date knowledge, skills, materials and equipment.



SteamCraft® Gemini™ 10

*TWO COMPARTMENT FLOOR MODEL DESIGN
PRESSURELESS CONVECTION STEAMER
TWIN, INDEPENDENT GAS-FIRED GENERATORS*

Cleveland Standard Features

- Cooking Capacity for up to ten 12" x 20" x 2 1/2" deep Cafeteria Pans, five each compartment.
- Totally independent cooking compartments, each has its own generator, gas valve and water level controls - no shared components
- Exclusive High Efficiency Gas Power Burner (forced air) Generator: Produces more steam for faster cooking while lowering operating costs (72M BTU's per compartment)
- Easy Access Cleaning Port: Each generator has a deliming port located on the outside, top of the unit
- Generator Cleaning Light for each compartment warns the operator to delime generator
- Instant Steam Standby Mode: Holds generator at a steaming temperature, allows unit to start cooking instantly
- Each compartment has one, 60-Minute Electro-Mechanical Timer with load compensating feature. Manual Bypass Switch for constant steaming.
- Durable 14 Gauge, 304 Stainless Steel construction for compartment door, cooking cavity and steam generator
- Exclusive Two-Piece Compartment door: Slammable, self-adjusting door provides and airtight seal, reversible door gasket for extended life
- Exclusive Gemini Drain/Power Control System: Simple, reliable 1/2" ball valve style drain automatically turns power ON/OFF
- Exclusive Brass Steam Jets distribute even-high velocity steam throughout cooking compartment for faster cooking times
- Easy, Front -Access Generator Controls comes with a pullout drawer for simple servicing of unit
- 6" Stainless Steel Adjustable Legs with Flanged Feet
- Approvals: CSA (AGA, CSA) and U.L./NSF#4
- Compartment Steam Shut-Off Switch (SCS)

Options & Accessories

- ☐ Electronic Timer with Compensating Feature (ETC)
- ☐ On/Off Steam Switch Controls, no timer (MC)

MODEL: ☐ 24-CGA-10.2

ITEM NUMBER _____

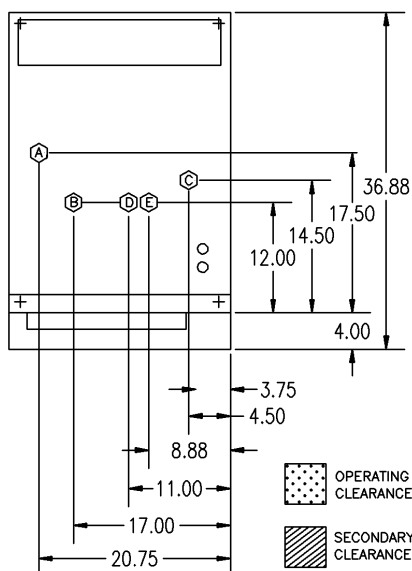
JOB NAME / NUMBER _____



Short Form Specifications

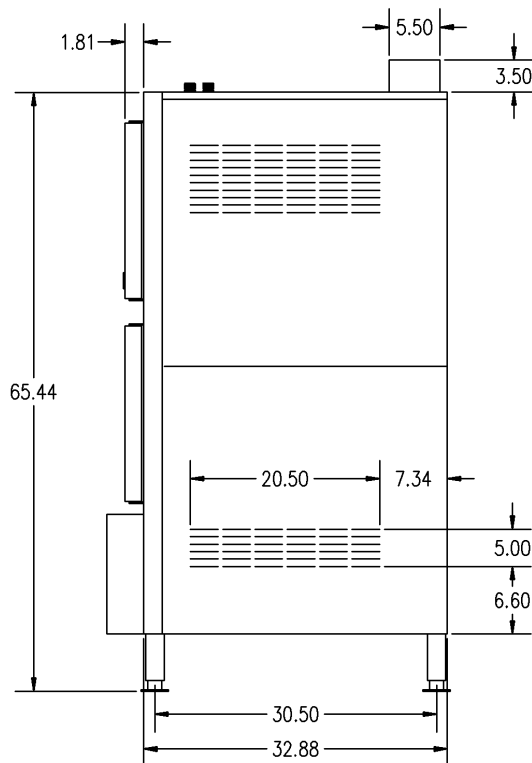
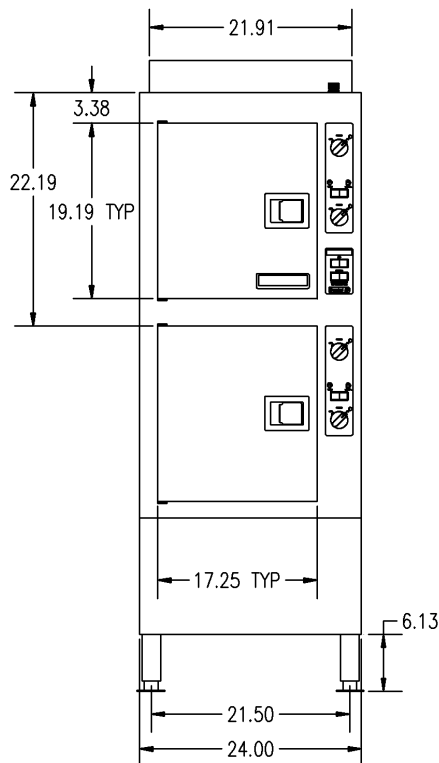
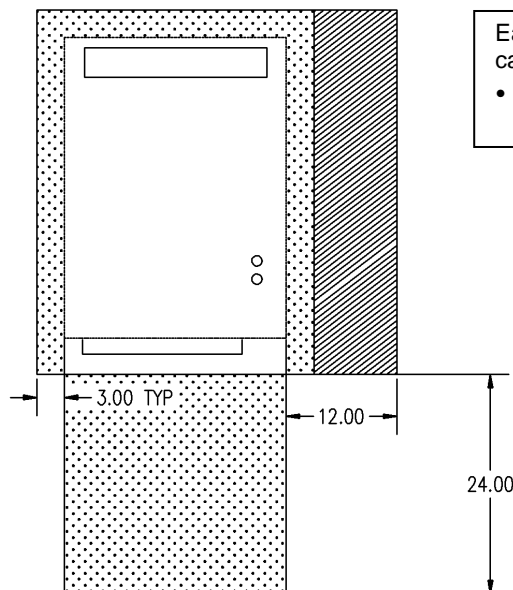
Shall be Two Compartments, Cleveland Convection Steamer series SteamCraft® Gemini™ 10, Model 24-CGA-10.2, Twin Gas Atmospheric Steam Generator, 72M BTU's input per compartment. Independent steam generator, gas valve and water level control system. Automatic Generator Blowdown. Steam Generator with Automatic Water Fill on start up. Exclusive remote probe-type water level controls. Exclusive Brass "Steam Jet" distribution system. Two-piece free-floating compartment door. Type 430 Stainless Steel exterior and cooking compartments. Pullout service drawer for controls and Gemini Drain/Power Control System. Exclusive Cold Water Condenser design. Choice of Compartment Controls. Manual

- ☐ Propane Gas (PG)
- ☐ Dissolve® Descale Solution, 6 one gallon container w/quart markings (106174)
- ☐ Water Filters



Each Compartment has capacity for:

- Five, 12" x 20" x 2½" deep Cafeteria Pans.



WATER QUALITY REQUIREMENTS

The quality of water varies greatly from region to region. Steam equipment generators must be drained daily and chemically descaled periodically to ensure proper operation. To minimize service problems caused by the accumulation of minerals and chemicals in water review the following quality guidelines with a local water treatment specialist. Inlet water that is beyond these specified guidelines should be treated to achieve these acceptable limits. Total Dissolved Solids less than 60 ppm, Alkalinity less than 20 ppm, Silica less than 13 ppm, pH factor greater than 7.5, Chlorine less than 30 ppm.

A GAS			B ELECTRIC	DE COLD WATER	CLEARANCE	C DRAINAGE
1½" IPS line size, ¾" (13mm) connection			120V-1Phase, 60 Hz.	35 psi minimum	Right - 3", Left - 3", Rear - 3" (12" on control side if adjoining wall or equipment is over 30" high for service access)	1½" dia.
NATURAL	PROPANE	BTU	2 Blowers & Controls	60 psi maximum		Do not connect other units to this drain
Piping ¾" N.P.T.	Piping ¾" N.P.T.	72,000 each	150 watts each	One (E) 1/4" dia. NPT for Generator		Drain must be vented
Supply pressure 4.50" W.C. Min.	Supply pressure 11.00" W.C. Min.	Generator, 144,000 total		One (D) 1/4" dia NPT for Condenser		Do not use PVC pipe
14.00" W.C. Max.	14.00" W.C. Max.					
Manufacturer must be notified if unit will be used above 2,000 feet					Contact factory for variances to clearances.	

NOTES:

Cleveland Range reserves right of design improvement or modification, as warranted.
Many regional, state and local codes exist and it is the responsibility of the owner and installer to comply with the codes.
Cleveland Range equipment is built to comply with applicable standards for manufacturers. Included among those approval agencies are UL/NSF#4 and CSA (AGA, CGA).

(NOT TO SCALE)
SECT. **IV** PAGE **14**
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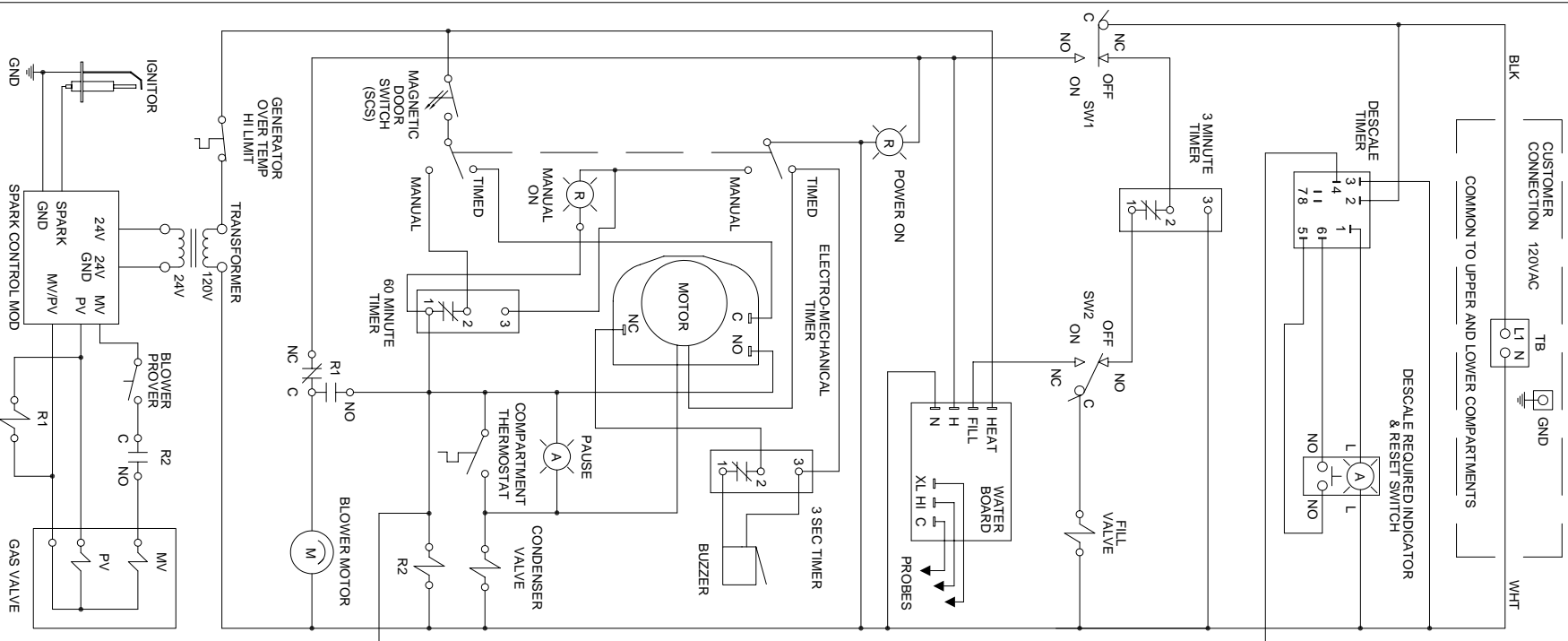
CLEVELAND RANGE GEMINI 24CGA 6.2
AND 24CGA10.2
SEQUENCE OF OPERATIONS
Mechanical Timer

Starting with the timed manual switch in the timed position, and no time on the timer.

1. To turn the unit on, turn the ON/OFF lever clockwise to the ON position
 - This mechanically closes the drain.
 - The red “Power On” indicator is energized.
 - 115 VAC is sent through the timer to the three-second timer, which activates the buzzer for three seconds.
 - 115 VAC is sent through the normally closed R1 contacts to the fan motor, turning it ON
 - 115 VAC is sent to H and N of the water level board
2. With the water level board energized and no water in the generator
 - 115 VAC is sent from the FILL terminal to the fill solenoid.
 - The fill solenoid opens and the generator fills.
3. The water fills to the low probe shorting it to ground
 - 115 VAC is sent from the HEAT terminal to the timed manual switch.
 - 115 VAC is sent through the high limit to the primary of the 24VAC transformer.
 - The water continues to fill until the water level reaches the high probe then 115 VAC is removed from the FILL terminal and the fill solenoid is turned off
4. 24VAC is sent to the ignition module.
 - Spark is sent to the igniter.
 - 24VAC is sent to the pilot coil of the gas valve and the coil of the R1 relay.
 - The normally closed R1 contacts open, turning off the fan
 - The pilot lights, which acts as a standby heater. When the pilot is ignited and the module detects 1.0 micro amps DC, the MV terminal on the module is energized it remains in this standby heat mode until a cooking compartment is turned “ON” (see step 5).
5. When the timed/manual switch is in the timed position and time is on the timer or the timed manual switch is set to the manual position:
 - 115 VAC is sent to the clean light timer.
 - When the clean light timer times down 115 VAC is sent to the clean light switch.
 - When the clean light switch is depressed the timer is reset.
 - 115 VAC is sent from the compartment timer through the door switch to the normally closed contacts of the compartment thermostat and R2 relay coil.
 - The “Sure Cook” light is energized.
 - 115 VAC is also sent from the door switch through the now closed contacts of the R1 relay to the fan motor.
 - The fan motor turns ON, and comes up to speed.

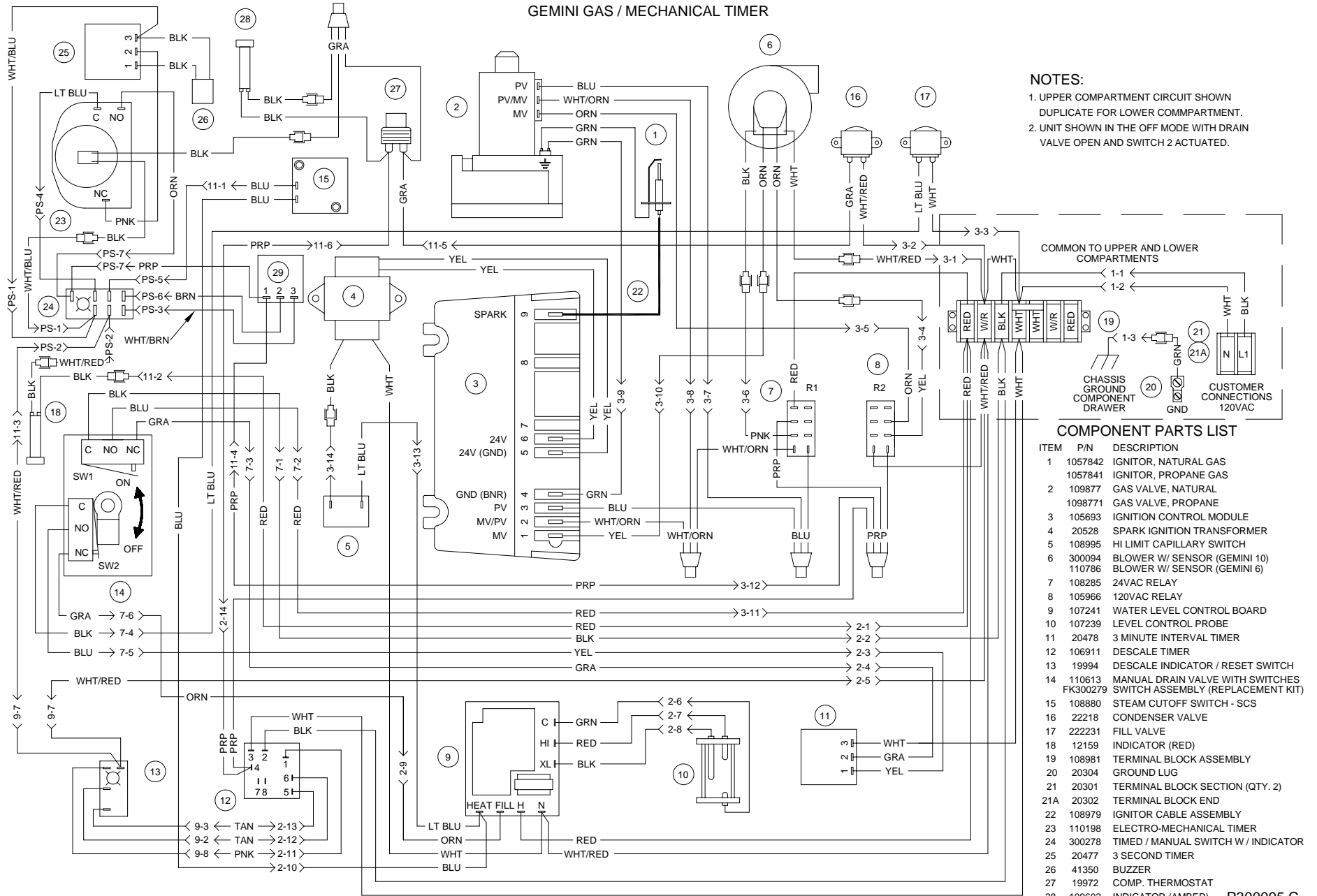
- The fan prover switch makes allowing 24 VAC to the normally open R2 contacts.
 - The normally open R2 contacts close and 24 VAC is sent to the main coil of the gas valve.
 - The main burner is ignited and the water heated to steam.
 - Steam enters the cabinet and the compartment thermostat closes at 193 degrees.
 - The “Sure Cook” light is de-energized.
 - If in the timed mode, 115 VAC is sent to the timer motor and the timer begins counting down.
 - The condensate solenoid is energized sending cold water down condensate spray nozzle pulling the steam around the product and down the drain.
6. When the timer times out or the unit is switched to the timed mode (with no time on the timer) from the manual mode, 115 VAC is sent to the 3 second timer and then to the buzzer for 3 seconds.
7. Whenever the water level drops below the high probe for 5 seconds 115 VAC is sent to the FILL terminal again.
8. When the on/off lever is turned off :
- The drain is mechanically opened, and the generator begins to drain.
 - The red “Power On” indicator light is de-energized.
 - 115 VAC is sent to the 3-minute timer and the fill solenoid is energized for 3 minutes flushing the drain.

GEMINI GAS - MECHANICAL TIMER



SINGLE COMPARTMENT SHOWN
DUPLICATE FOR SECOND COMPARTMENT

GEMINI GAS / MECHANICAL TIMER



NOTES:

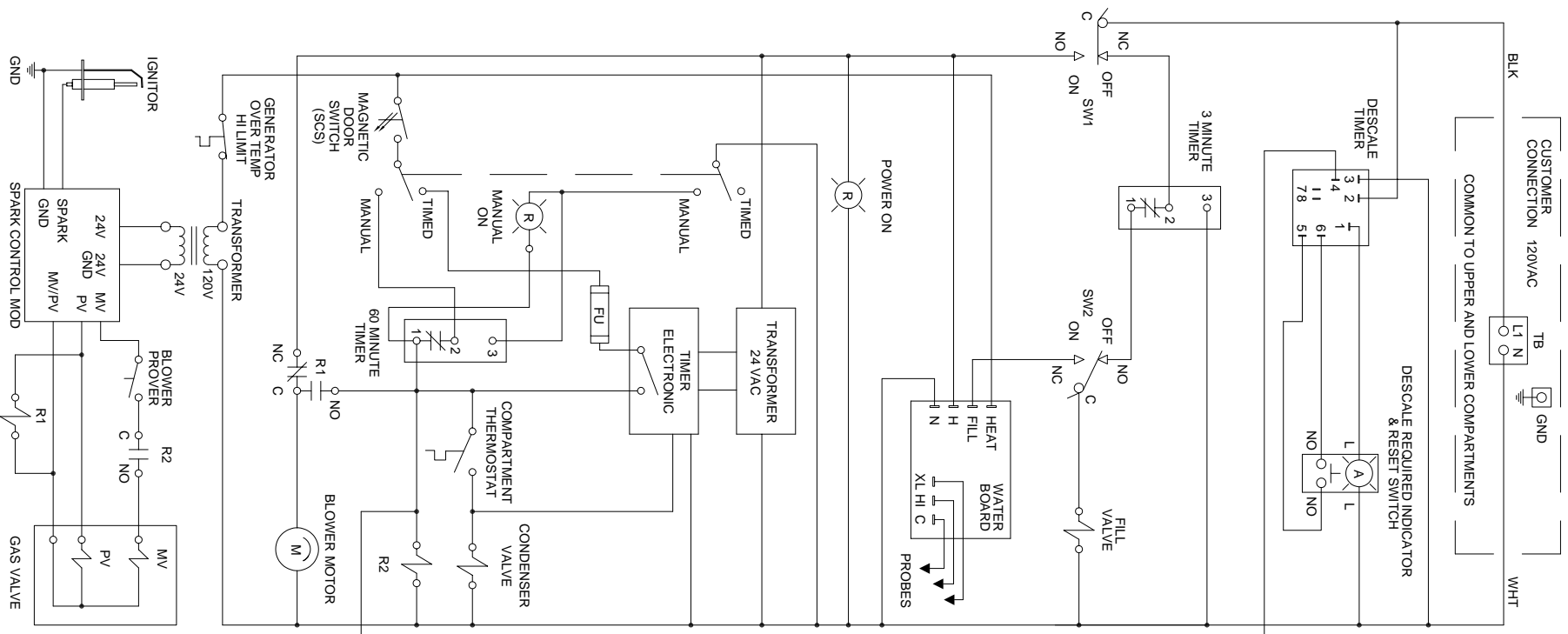
1. UPPER COMPARTMENT CIRCUIT SHOWN
DUPLICATE FOR LOWER COMPARTMENT.
2. UNIT SHOWN IN THE OFF MODE WITH DRAIN
VALVE OPEN AND SWITCH 2 ACTUATED.

COMMON TO UPPER AND LOWER COMPARTMENTS

ITEM	P/N	DESCRIPTION
1	1057842	IGNITOR, NATURAL GAS
	1057841	IGNITOR, PROPANE GAS
2	109877	GAS VALVE, NATURAL
	1098771	GAS VALVE, PROPANE
3	105693	IGNITION CONTROL MODULE
4	20528	SPARK IGNITION TRANSFORMER
5	108995	HI LIMIT CAPILLARY SWITCH
6	300094	BLOWER W/ SENSOR (GEMINI 10)
	110786	BLOWER W/ SENSOR (GEMINI 6)
7	108285	24VAC RELAY
8	105966	120VAC RELAY
9	107241	WATER LEVEL CONTROL BOARD
10	107239	LEVEL CONTROL PROBE
11	20478	3 MINUTE INTERVAL TIMER
12	106911	DESCALE TIMER
13	19994	DESCALE INDICATOR / RESET SWITCH
14	110613	MANUAL DRAIN VALVE WITH SWITCHES
	FK300279	SWITCH ASSEMBLY (REPLACEMENT KIT)
15	108880	STEAM CUTOFF SWITCH - SCS
16	22218	CONDENSER VALVE
17	222231	FILL VALVE
18	12159	INDICATOR (RED)
19	108981	TERMINAL BLOCK ASSEMBLY
20	20304	GROUND LUG
21	20301	TERMINAL BLOCK SECTION (QTY. 2)
21A	20302	TERMINAL BLOCK END
22	108979	IGNITOR CABLE ASSEMBLY
23	110198	ELECTRO-MECHANICAL TIMER
24	300278	TIMED / MANUAL SWITCH W / INDICATOR
25	20477	3 SECOND TIMER
26	41350	BUZZER
27	19972	COMP. THERMOSTAT
28	109602	INDICATOR (AMBER)
29	300150	60 MINUTE TIMER

P300095 C

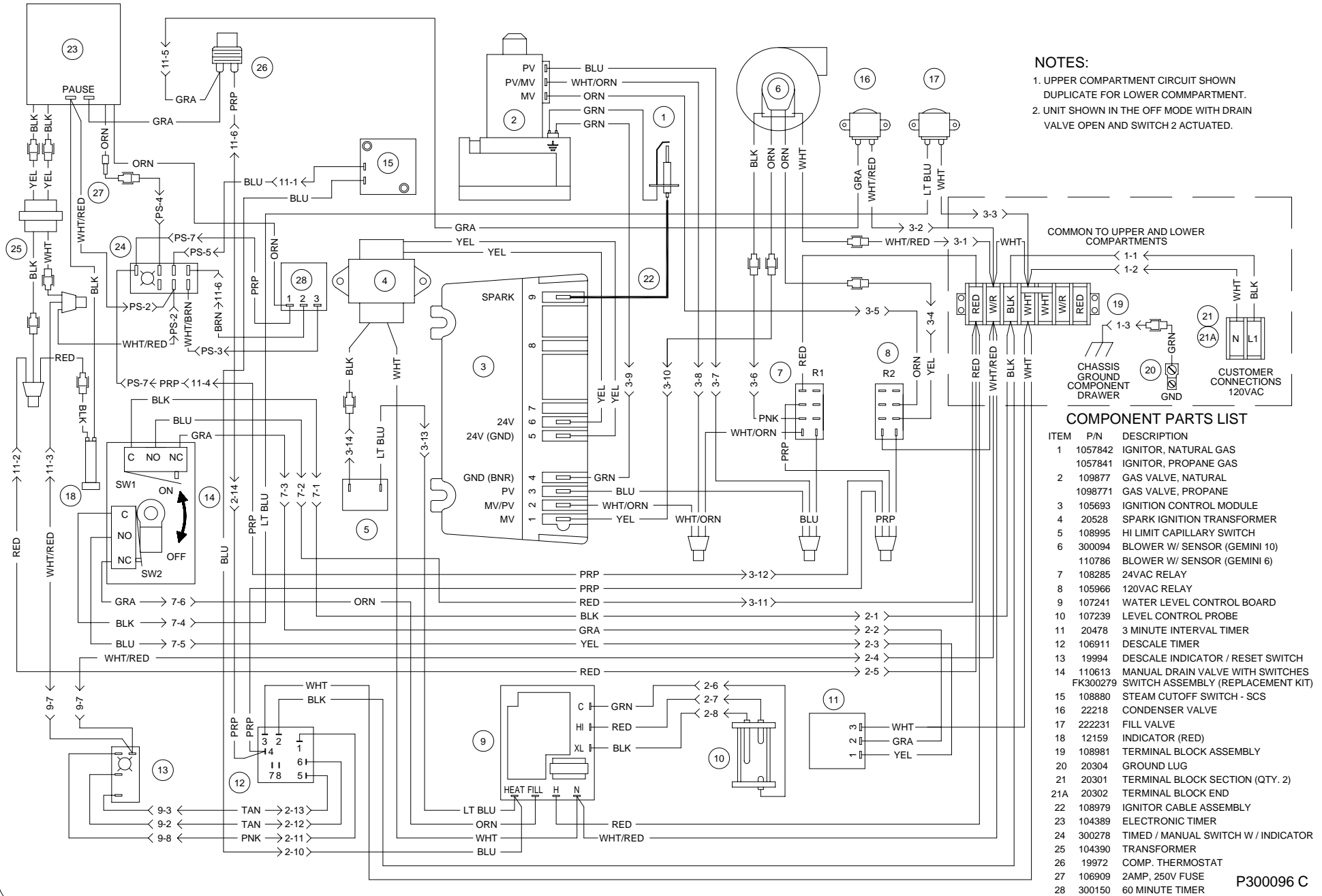
GEMINI GAS - ELECTRONIC TIMER



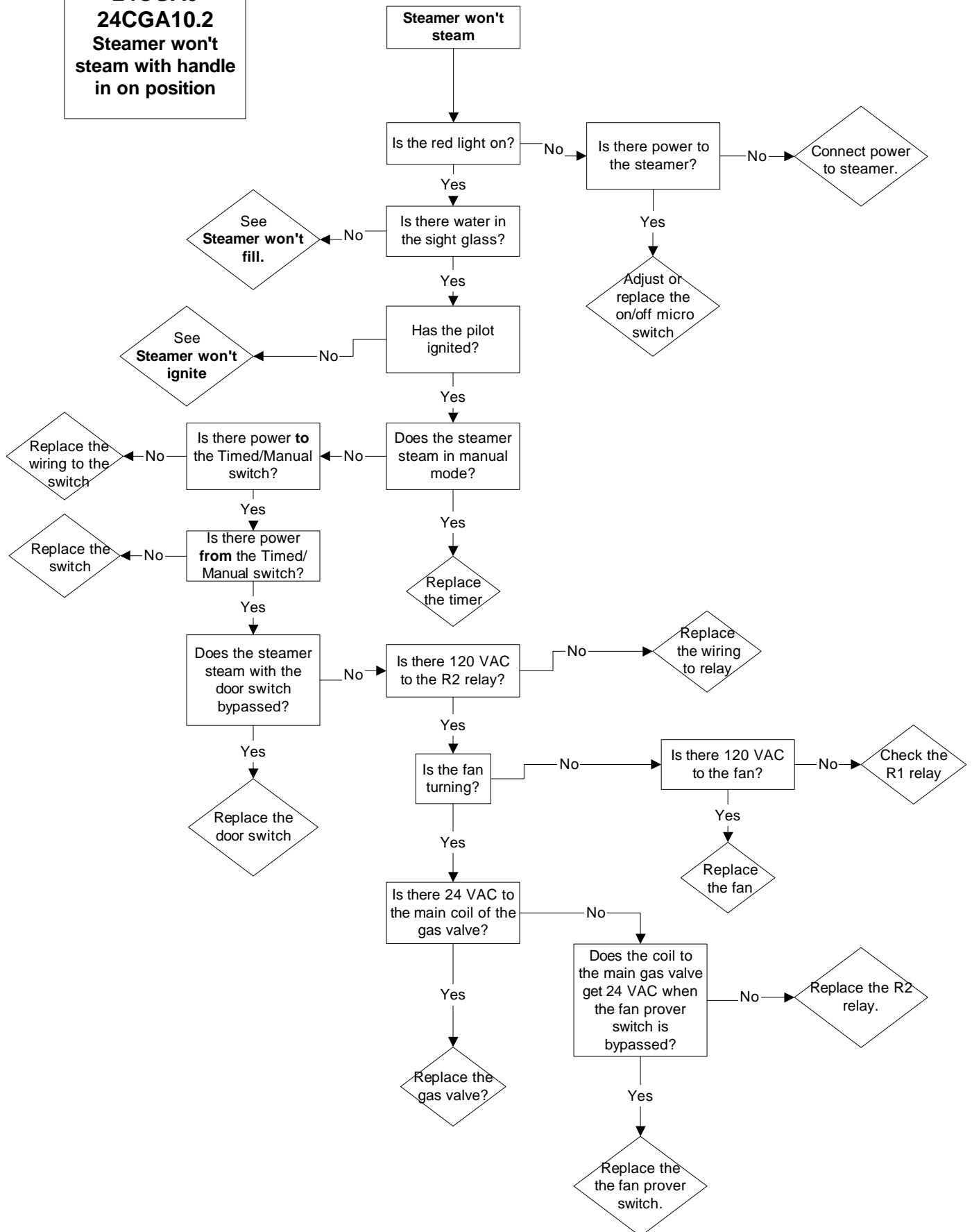
SINGLE COMPARTMENT SHOWN
DUPLICATE FOR SECOND COMPARTMENT

L300096 C

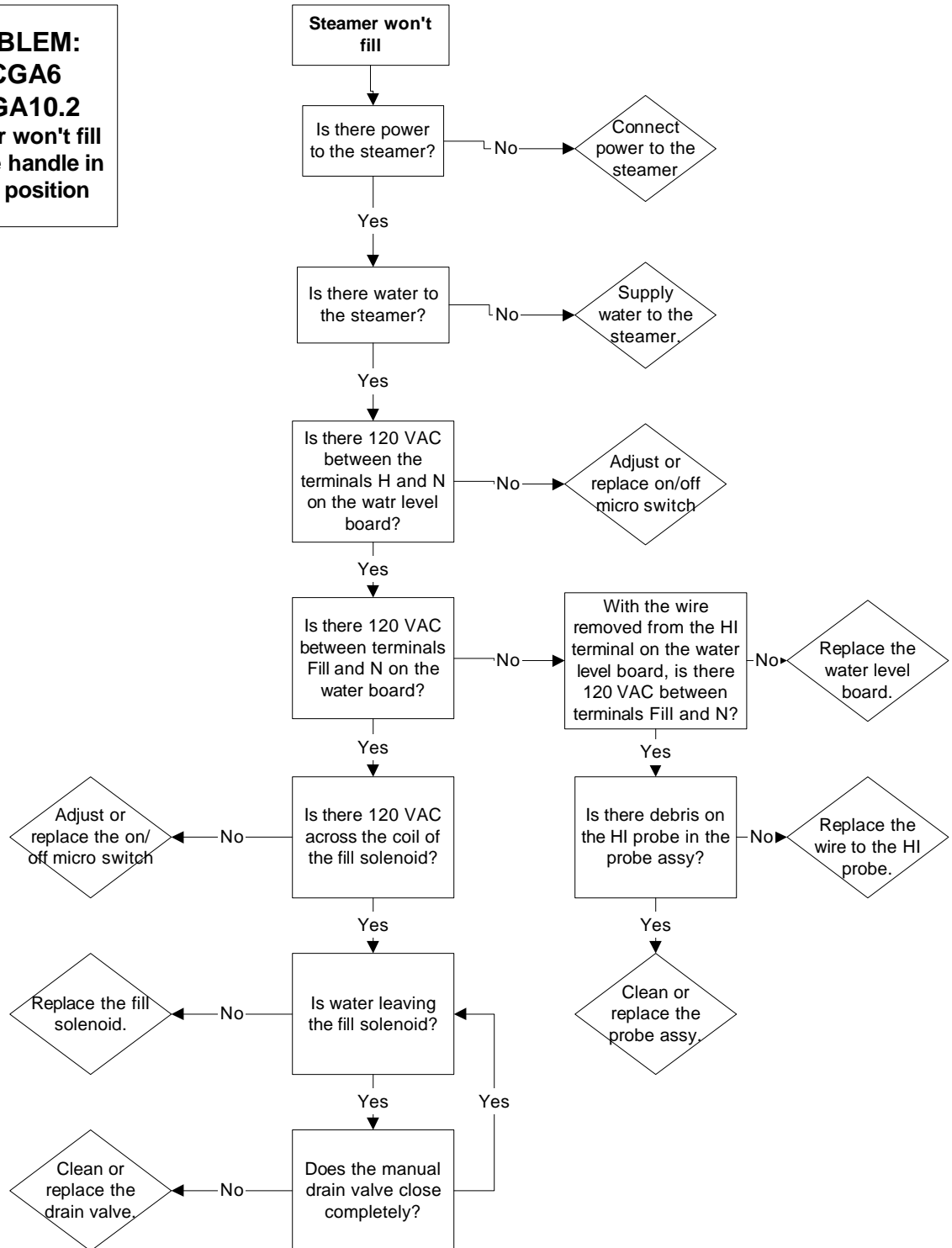
GEMINI GAS / ELECTRONIC TIMER



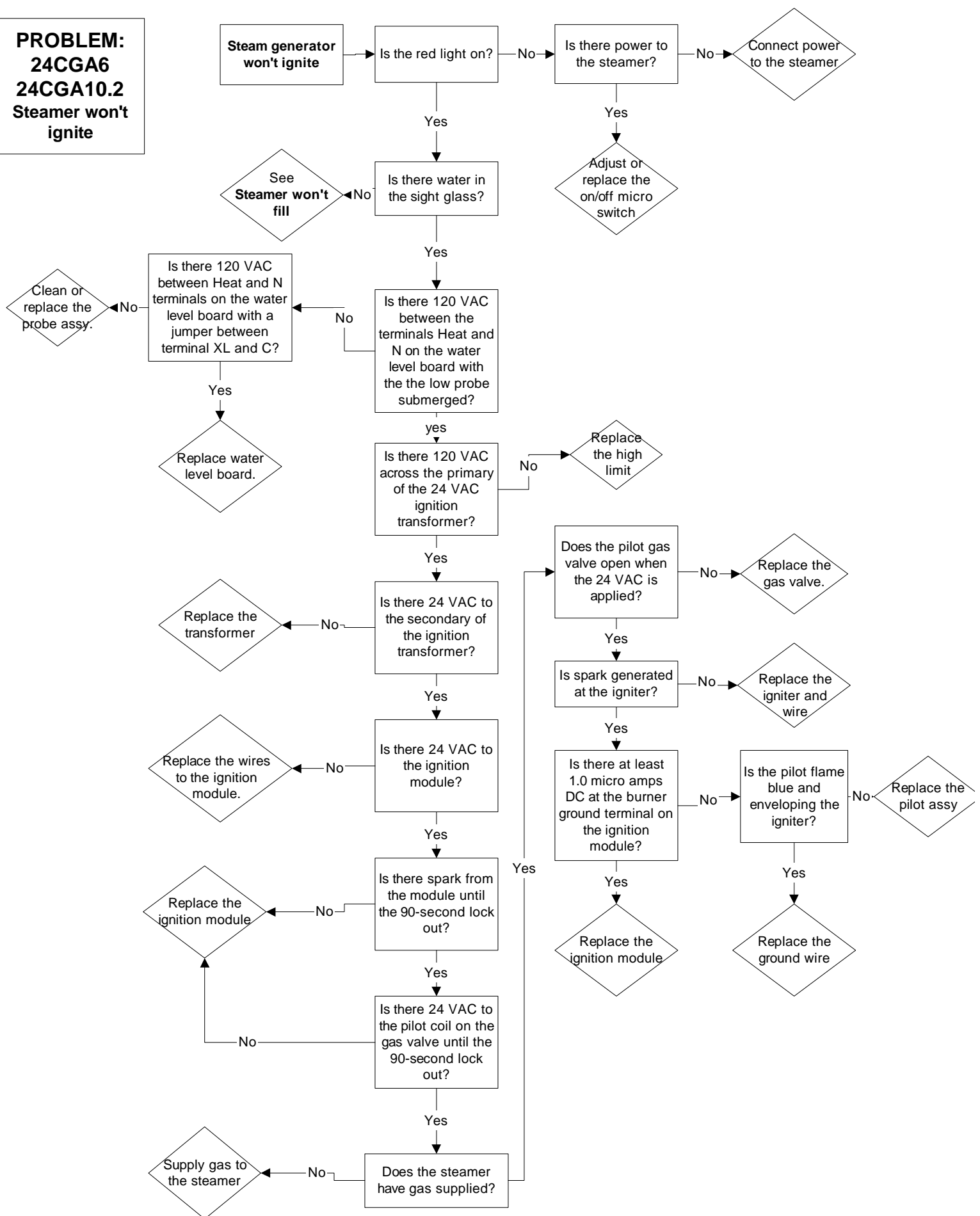
PROBLEM:
24CGA6
24CGA10.2
 Steamer won't
 steam with handle
 in on position



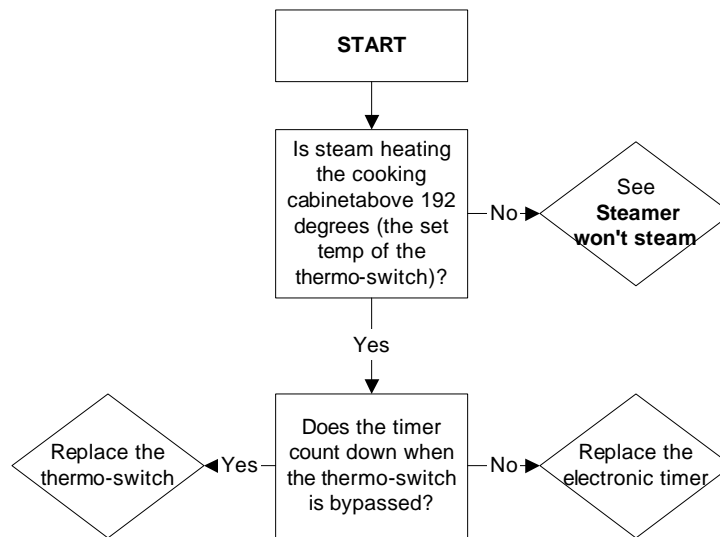
PROBLEM:
24CGA6
24CGA10.2
Steamer won't fill
with the handle in
the on position



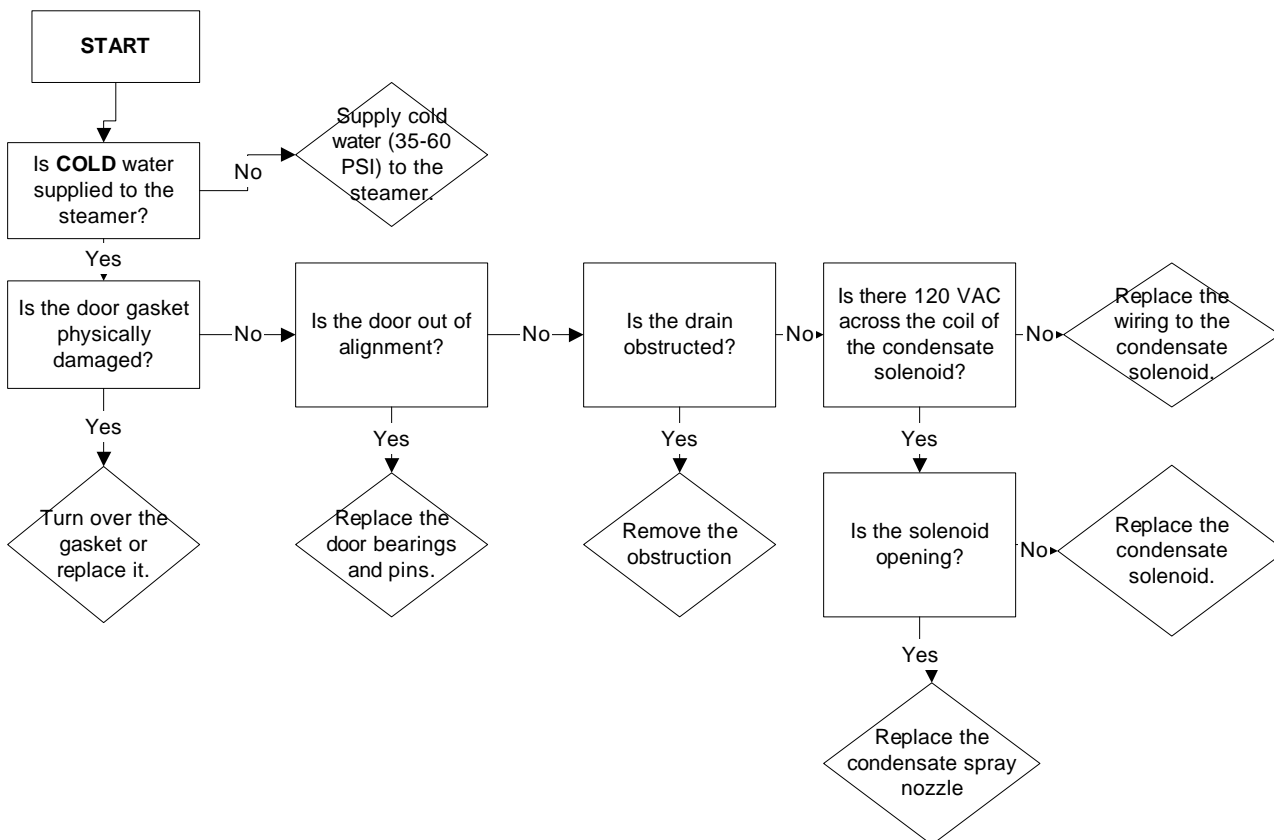
PROBLEM:
24CGA6
24CGA10.2
Steamer won't ignite



PROBLEM:
24CGA6, 24CGA10.2
Electronic timer displays "PAUS" and won't count down



PROBLEM:
24CGA6, 24CGA10.2
Steam leaks around the door.





Cleveland

Descaling Procedure-SteamCraft Ultra and Gemini Series

How Much DISSOLVE to Use

Model	Dissolve
Ultra 3	1/2 Gallon
Ultra 5	1 Gallon
Ultra 10 (Elec.)	1 Gallon (ea.)
Ultra 10 (Gas)	1½ Gallon
Gemini 6 & 10	1 Gallon (ea.)

1. Turn the unit OFF and open the doors:

This will drain and rinse the generator for about 3 minutes.

2. Turn the unit power back On:

The generator will begin to refill with water.

3. Select Timed with the Timed/Manual switch:

DO NOT start the timer, since you do not want to heat the water during descaling. Leave the doors open.

4. Remove descaling port cap and add with the specified amount of DISSOLVE: (See chart above)

Do this while the unit is refilling. The generators can take-up to 8 minutes to refill.

5. After refill has stopped, add extra tap water into the descaling port until liquid is seen entering the cooking cabinet. Note: Ultra 10 gas will have liquid coming out of the drain,

Adding extra water when descaling will raise the descaling solution higher than the normal fill level, allowing the DISSOLVE to work on sensors and surfaces above the water line

Note: Some SteamCraft Ultra models (the electric powered Ultra 10 and Gemini 6 and 10, for example) have two generators and two descaling ports. Both units should be descaled at the same time, using this procedure

6. Let the descaler soak in generator for approximately one hour:

7. After one hour, turn the unit power

Off: This will drain and rinse the generator for about 3 minutes.



8. After the 3-minute drain cycle completes, turn the unit back ON. After the filling has stopped, add water until liquid enters the cooking compartment (or drain for the ultra 10 gas), and then turn the unit OFF. This will drain and flush any residue from the water level control assembly. **Replace descaling cap.**

9. After the 3 minute drain cycle completes, Turn the unit ON and set the Timer for 20 minutes: Make sure the Time/Manual switch is in the timed setting and the doors are closed.

10. When the timer times out (after 20 minutes) turn the power Off:

This will drain and rinse the generator for about 3 minutes.

This ends the descaling procedure. You can now turn the unit back on and resume normal startup and cooking operations.